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Tennessee. Dept. of public instruction

A BRIEF COURSE
in
Domestic Science

Arranged Under the Direction of
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for
**STATE INSTITUTES OF
TENNESSEE**

1913

J. W. BRISTER
State Superintendent of Public Instructions
NASHVILLE

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PREFACE.

This bulletin is prepared as a supplement to demonstrations in Domestic Science in Summer Institutes.

It contains a few practical lessons which it is hoped will be of value to teachers of village and rural schools, in which no provision has been made for Domestic Science.

It is intended that these elementary lessons shall be given in the schools, and it is hoped that much may be accomplished in the improvement of existing conditions in many of the homes.

THE OBJECT OF THIS COURSE.

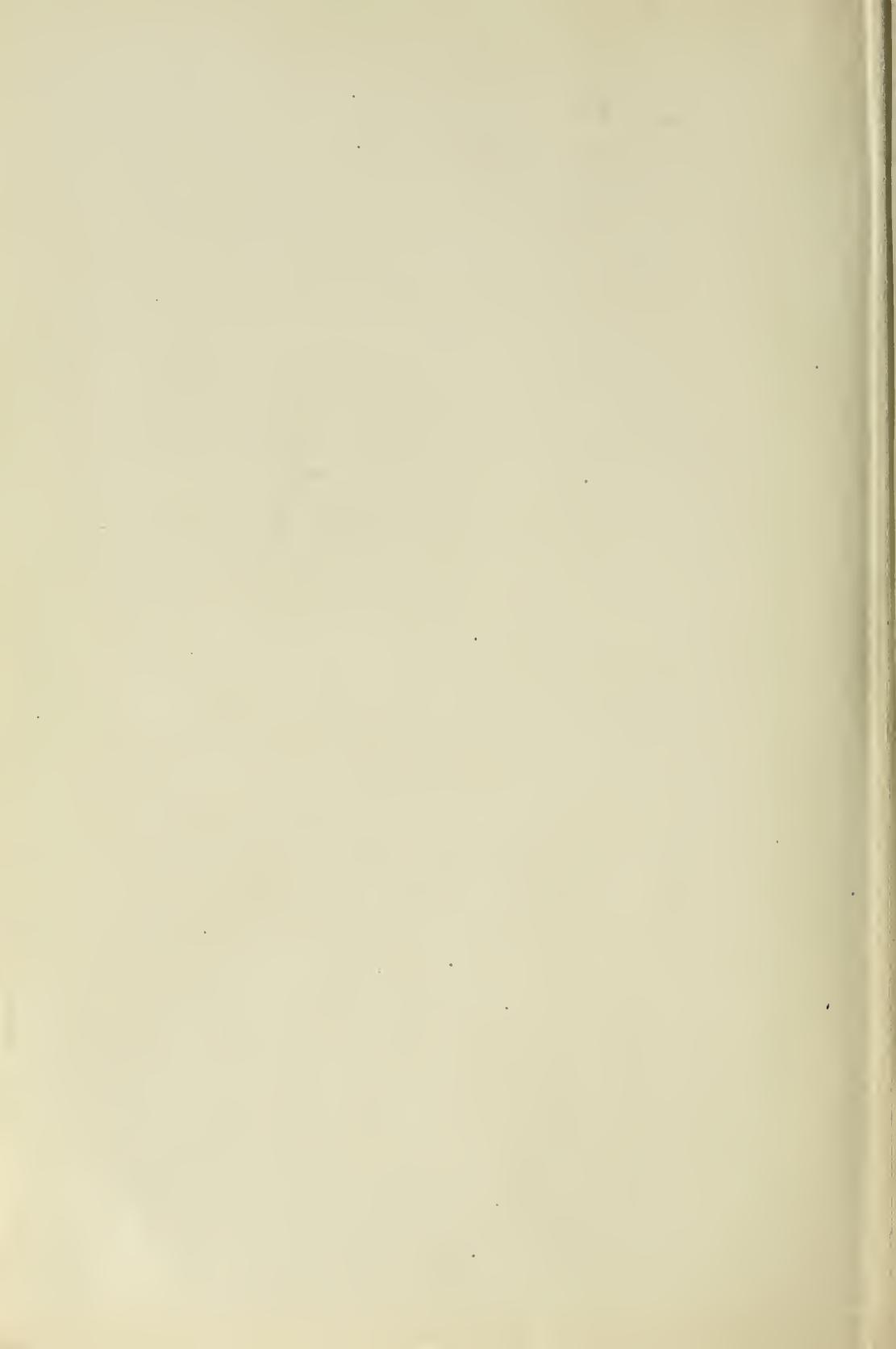
I. To impress the teachers with the importance of improving the homes of the communities in which they teach by making the children of those homes more capable and efficient.

II. To give a few practical lessons in Domestic Science, which may be demonstrated in any school.

III. To make these lessons of value by connecting the school with the home.

IV. To impress the teachers with the possibilities through Domestic Science of raising the standard of the (1) individual pupil; (2) of the home; (3) of the school; (4) of the community; and of increasing the health, happiness, and prosperity of the home, the school, and the community.

V. To emphasize the opportunity for correlation, economy, and efficiency.



A Domestic Science Course.

A BRIEF COOKING COURSE.

Especially suited to the needs of the teachers of village and rural schools.

GENERAL SUGGESTIONS.

- I. All measurements are level.
- II. Level a cup or spoon by scraping gently with a knife.
- III. Glass measuring cups are much more accurate, convenient and cleanly than ordinary tin cups.
- IV. All cup measurements in the following recipes are based on 1 cup or $\frac{1}{2}$ pint.
- V. Measure meal, flour or fine sugar after sifting.
- VI. Do not allow an extra amount for "good measure."

TABLE MEASUREMENTS.

3 teaspoons (t)=1 tablespoon (T).
16 tablespoons=1 cup solids (c).
2 cups sugar=1 pound (lb.).
4 cups sifted flour=1 pound.
2 cups fat (solid)=1 pound.

ESSENTIALS IN COOKING.

- I. Personal neatness.
- II. Cleanliness.
- III. System and regularity in work.
- IV. Variety in food selection.
- V. Exactness in measurements.
- VI. Careful attention.
- VII. Economy.

One quart (qt.) of each of the following will serve six persons:

I. Soup.	V. Ice cream.
II. Coffee or tea.	VI. Custard.
III. Cooked cereal.	VII. Oysters.
IV. Chocolate.	

COMMON METHOD OF APPLYING HEAT.

- I. Boiling—Cooking in water at a boiling temperature, 212 degrees, Fahrenheit (F.).
- II. Stewing—Cooking in water below the boiling point, 160-198 degrees (F.).
- III. Frying—Cooking in deep fat (cooked foods require more heat and less time for frying than uncooked).
- IV. Sauteing—Cooking in a small amount of fat, commonly called frying.

V. Broiling—Cooking over hot coals, or under a gas flame, or in a hot pan. Sear the surface by extreme heat, and then cook more slowly. This preserves all of the juices and flavors the meat. Never pound steak before broiling it.

VI. Roasting—Cooking meat by surrounding the whole surface with heat.

FOODS.

In a study of Domestic Science in its many phases with their important relations to the home and to every member of the home, probably the greatest problems to be considered is food, its composition and cooking. What is food?

“Food is that which taken into the body builds tissue and yields heat and energy.”

What is the best food?

The best food is—

1st. The most healthful—that food which is best suited to the needs of the consumer.

2d. The most economical—that which furnishes the greatest amount of nourishment at the lowest cost.

In order to understand food and its relation to the body it is necessary to study something of the composition of food.

As our bodies are composed of different elements uniting to form different substances—bone, flesh, muscle, hair, teeth, skin, etc.; so also are the foods that are used in the building up of these bodies composed of different elements.

The chief elements which enter into our food products are carbon, oxygen, and hydrogen from the air and water; nitrogen from the air through plants; calcium, phosphorous, sulphur and potash from the rock and soil through vegetables.

These elements unite in different proportions to form our foods and for convenience we have named some of the combinations; and we find that food consists of five compounds:

(1) Protein, (2) Fat, (3) Carbohydrates, (4) Mineral Matter, (5) Water.

I. Under Protein we find—

1. Albumen (in white of egg).
2. Gluten (in grain or cereal).
3. Myosin (in lean meat).
4. Casein (in cheese and milk).
5. Fibrin (in blood).

II. Under Fat we find—

1. Butter.
2. Cream.
3. Fat of meat.
4. Fish.
5. Cereal.

III. Under Carbohydrates we find—

1. Starches.
2. Sugar.
3. Glucose.

IV. Under Minerals we find—

1. Sodium chloride (common salt).
2. Magnesium.
3. Calcium.
4. Iron.
5. Phosphorous.

COMPOSITION OF A FEW COMMON FOODS.

Food Material.	Water.	Protein.	Fat.	Carbohydrates	Ash.
Beef, round, lean	64.4	19.5	7.3	....	1.0
Beef, round, fat	54.0	17.5	16.1	....	.8
Eggs	73.7	13.4	10.5	....	1.0
Eggs, yolks	49.5	15.7	33.3	....	1.1
Milk, whole	87.0	3.3	4.0	5.0	.7
Milk, skimmed	90.5	3.4	.3	5.1	.7
Cream	74.0	2.0	18.0	4.5	.5
Butter	11.0	1.0	85.0	....	3.0
Corn meal	12.5	9.2	1.9	75.4	1.0
Rolled Oats	7.8	16.5	1.3	66.5	1.9
Rice	12.4	8.0	.3	79.0	.4
White Flour	13.8	7.9	1.4	76.4	1.5
Whole Wheat Flour	11.4	13.8	1.9	71.9	1.0
Dried Beans	12.6	22.5	1.8	59.6	3.5
Fresh String Beans	89.2	2.3	.3	7.4	.8
Cabbage	91.5	1.6	.3	5.6	1.0
Potatoes	78.3	2.2	.1	18.4	1.0
Spinach	92.3	2.1	.3	3.2	2.1
Apples	84.6	.4	.5	14.2	.3
Prunes	79.6	.9	....	18.9	.6

(Adapted from Bulletin No. 28, office of Experiment Station, U. S. Department of Agriculture.)

Two pounds of solid food and three pints of water is about the amount required each day for the body of an adult.

Food that is used by the body is either tissue building or heat producing. The proteins largely include the first class; the carbohydrates and fats the latter. The fuel value of food is measured in calories, as heat in the body or atmosphere is measured by degrees.

CALORIES.

A calorie is the common measure for the heat producing property of foods. It is the amount of heat required to raise the temperature of one pound of water, four degrees, F.

Thus we speak of potatoes having a fuel value of 375 calories per pound. The following table gives the fuel value of most of our common foods. From a careful study of both, it will be seen that careful planning of the bill-of-fare is important both winter and summer. For example, oatmeal contains about 85 per cent of food properties and has a fuel value of 1,845 calories per pound; whole rice contains 86 per cent of food properties and has a fuel value of 1,630 calories per pound, and should be preferred for a summer food.

FUEL VALUE OF ONE POUND OF FOOD.

	Calories.		Calories
Beef, round	805	Potatoes	375
Beef, sirloin	2,000	Beans	570
Mutton, leg	1,140	Rice	1,630
Cod	310	Corn meal	1,645
Oyster	260	Oatmeal	1,840
Milk	325	Wheat flour	1,645
Butter	2,015	Wheat bread	1,280
Cheese	2,070	Sugar	1,820

Lesson No. I.

POTATOES.

I. *White Potato*—

1. Composition	2. Nutritive value.	3. Use in body.
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II. *History*—

1. Native of America.	2. General adoption.
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III. *Favorite vegetable because*—

1. Easily grown.	4. Supplies starch.
2. Abundant yield.	5. Lack of pronounced flavor.
3. Readily stored.	6. Many ways of preparing.

IV. *Preparation*—

1. Boiled.	5. Creamed.
2. Baked (best for invalids).	6. Stuffed.
3. With cream sauce.	7. Salad.
4. Scalloped.	

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No. 35. Potato Culture.

No. 129. Sweet Potatoes.

Office of Experiment Station:

No. 245. Course in Use and Preparation of Vegetable Foods.

Lessons to be correlated with History, Geography, Arithmetic, and Physiology.

Lesson No. II.

MILK.

I. *Tests for the constituents of milk*—

Experiment I—Drop milk or cream on a blotter or unglazed paper. What kind of spot does it make?

Experiment II—Test with iodine. Is starch present?

Experiment III—Taste sweet, then sour milk. Why does the first taste sweet?

Experiment IV—Boil some milk. Observe the steam which rises. A film forms over the top. What is it?

Experiment V—Add an acid (vinegar) to milk. What happens?

II. *Food Value*.

Milk is the sole food for the young of many animals. It contains all the elements needed for the nourishment of these animals, and is often called a "perfect food." For adults milk alone is not a perfect food.

Why Milk Sours: Milk sours because of an acid formed by bacteria. They feed on the milk sugar or lactose and convert it into lactic acid. Bacteria also give the characteristic taste to butter and cheese.

Care of Milk: Bacteria grows very rapidly in milk. Therefore the utmost care should be taken for clean handling, storing and serving of milk.

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- No. 413. The Care of Milk and Its Use in the Home.
- No. 74. Milk as Food.
- No. 42. Facts About Milk.

DISH WASHING.

I. *Hot Water is the first Essential.*II. *Cleansers.*

- 1. Soap—
 - a Home-made.
 - b Lenox.
 - c Ivory.
- 2. Alkalies to remove grease—
 - a Salsoda solutions.
 - b Ammonia.
 - c Potash.
 - d Lye.
- 3. Scouring, substances.
 - a Sand for wood and iron.
 - b Brick dust and potato for steel knives.
 - c Ashes or salt and vinegar for copper and brass.
 - d Whiting for silver, aluminum and brass.

III. *Utensils.*

- 1. Two dishpans.
- 2. Two dishmops.
- 3. Soap shaker.
- 4. Scrub brush.
- 5. Vegetable brush.
- 6. Towels—
 - a Dish cloth (hemmed).
 - b Tea towel.
 - c Hand towel.

Lesson No. III.

EGGS.

I. *Eggs Used in Different Countries—*

- 1. In United States:
 - a Hen's eggs are most common
 - b Duck.
 - c Geese.
 - d Guinea.
 - e Turkey.
- 3. In England and Germany:
 - a Plover.
- 4. On Coast of California:
 - a Gulls'.
- 5. By barbarous tribes:
 - a Fish.
 - b Reptile.

- 2. In South Africa:
 - a Ostrich.

II. *Value of Eggs—*

- 1. Nutritive value.
- 2. Comparative value.
- 3. Commercial value.

III. *Construction—*

- 1. Shell.
- 2. Membrane.
- 3. White.
- 4. Yolk, which is held in place by two twisted white cords.
- 5. Use of contents of egg is to nourish the embryo chick.

IV. Cause of Spoiling—

1. Water evaporates.
2. Air enters to fill the vacuum.
3. Gas is formed from water and sulphur in the egg.

V. Test for Fresh Eggs—

1. By the eye—holding the egg toward a candle or sun.
2. They sink in water when fresh (lie flat on the side).
3. If spoiled, they rattle when shaken.

VI. Means of Preserving.

1. Water glass.
2. Lime water.
3. Salt.

Note—The preservative should be selected with care to avoid spoiling the flavor by absorption through the pores. Porosity of the shell is shown by boiling the egg in water colored with cochineal.

VII. Antidote for Poisons—

1. Eggs may be used as an antidote for the following poisons:
a Lead. b Arsenic c Copper. d Mercury.

This work is to be correlated with Arithmetic, Physiology, Language, Nature Study.

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- No. 120. Eggs and Their Use as Food.
- No. 43. Digestive Experiments with Eggs and Potatoes.
- No. 182. Poultry as Food.
- No. 10. Production and Marketing of Eggs and Fowls.

Lesson No. IV.

SCHOOL LUNCHES.

I. Eating and Efficient Living—

1. Interest the child in what he eats.
2. Importance of proper lunch for the child.

II. Schoolroom Cookery—

1. Cereals.
2. Soups.

III. Object—

1. To emphasize the health of the children.
2. To give instructions in cooking.
3. To give instruction in table manners.

*IV. The Cultural Possibilities of the Noon Hour in Rural Schools.**V. The importance of Eating in a Quiet, Leisurely, Orderly Manner.*

VI. Necessary Utensils—

1. A 6 or 8-quart granite kettle with cover.
2. A long handle spoon.
3. A ladle or dipper for serving.

VII. Materials Furnished—

1. Milk.
2. Beans.
3. Cornmeal.
4. Rice.
5. Paper Napkins.

VIII. The Box-lunch—

1. Paraffin paper.

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What Children Should Eat—Edith Green.

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Good Luncheons for Rural Schools without a Kitchen—Ellen H. Richards.

The Daily Meals of School Children—Caroline L. Hunt.

United States Bureau of Education.

Lesson No. V.

CEREALS.

I. General Statement—

1. Ancient and extensive use of cereal foods.
2. Primitive preparations of grains.
3. Reasons for general use of cereal foods.
 - a. Cheap.
 - b. Easily grown.
 - c. Grow in almost every climate.
 - d. Easily prepared.
 - e. Easily stored.
 - f. Easily transported.
 - g. Palatable.
 - h. Digestible.
 - i. Contains unusually good proportions of food ingredients.

II. Preparation of Cereals—

1. Raw.
2. Semi-cooked.
3. Cooked.
4. Reasons for cooking—makes more palatable, digestive, softens woody fibre, and makes starch more available.

III. Grains Used for Breakfast Foods, and Nutritive Value—

	Protein.	Fat.	Carbohydrate.
1. Corn	7.9	4.3	66.7
2. Oats	11.5	5.9	52.1
3. Rice	4.8	.3	72.2
4. Wheat	10.2	1.7	69.2

IV. Food Value—

1. Use in the body.
2. Comparative value.
3. Great importance of the ash constituent.
4. Absorption of water by different grains.
5. Adulterations of bought breakfast foods.
6. Cost in comparison to home grown and prepared cereals.
7. Breakfast foods prepared at home:
 - a Varieties.
 - b Methods.
 - c Place in the diet.
 - d Judicious combination with other foods.
 - e Addition of cream and sugar—food value.

VI. Table for Cooking Cereals—

Kind.	Quantity.	Salt.	Water.	Time.
Farina	1 cup	1½ teaspoon	4 cups	20 minutes
Cream of Wheat	1 cup	1 teaspoon	4 cups	20 minutes
Ralston	1 cup	1 teaspoon	3 cups	30 minutes
Cornmeal	1 cup	1½ teaspoon	4 cups	2½ hours
Rice	1 cup	1 teaspoon	2 cups	30 minutes
Hominy (coarse)	1 cup	2 teaspoon	5 cups	3 hours
Hominy (fine)	1 cup	1½ teaspoon	4 cups	2 hours
Oatmeal (rolled)	1 cup	1 teaspoon	2 cups	30 minutes
Oatmeal	1 cup	1½ teaspoon	4 cups	3 hours

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Farmers' Bulletins:

No. 249. Cereal Breakfast Foods.

Office of Experiment Station Bulletin:

No. 200. A Course in Cereal Food.

Lesson No. VI.**INVALID COOKERY.***I. Dietaries Are Frequently Classified as Follows:*

1. Liquid diet—
 - a Broth.
 - b Meat extract.
 - c Milk.
 - d Gruel.
 - e Eggnog.
 - f Cream soup.
 - g Beverages.
2. Soft diet—
 - a Cereals.
 - b Soft cooked eggs.
 - c Milk and cream toast.
 - d Custards.
 - e Junket.
 - f Jellies.
3. Light diet—
 - a Eggs.
 - b Sweetbreads.
 - c Chicken.
 - d Squabs.
 - e Quail.
 - f Tenderloin steak.
 - g Scrambled beef balls.
 - h Bacon.
 - i Baked potatoes.
 - j Asparagus.
 - k Peas.
 - l Gelatin.
 - m Cornstarch desserts.
 - n Sponge cakes.
 - o Baked apples.
 - p Oranges and other fruits

4. Full convalescent diet:

- a Soup.
- b Meats except fresh pork and veal.
- c Vegetables except cabbage, green corn and cucumbers.
- d Fruits.
- e Fish.
- f Eggs.
- g Desserts except pastry and rich cake.

II. If a special diet is ordered by the physician, special care must be taken in preparation, and only the foods prescribed by the physician may be given.

Lesson No. VII.

MEATS.

I. History—

- 1. Use of animals as food by the ancients.
- 2. What animals were used.
- 3. How killed and prepared.
- 4. Bible laws prohibiting use of pork, reason why.
- 5. Use of young kids (undeveloped meat spoils quickly).
- 6. Bible laws of health and cleanliness.

II. Geography—

- 1. Where raised, reason for better stock in some places.
- 2. Effect of climate.
- 3. Why cannot Tennessee raise as fine beef as any other state in the Union?

III. Live Stock—

- 1. Careful feeding.
- 2. Clean Water.
- 3. Method of killing and dressing.
- 4. Effect of refrigeration.

IV. Objects of Cooking—

- 1. To render meat more sightly and palatable.
- 2. To destroy bacteria and parasites.

V. Principles Involved in Different Methods of Cooking—

- 1. Boiling.
- 2. Roasting.
- 3. Broiling.
- 4. Frying.
- 5. The aim is to retain all juices in meat.
- 6. Expose to great heat to coagulate albumén on the surface.
- 7. The smaller the piece, the greater the heat that can be applied.

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- No. 34. Meat Composition and Cooking.
- No. 183. Meat on the Farm.
- No. 391. Economical Use of Meat in the Home.
- No. 193. Effect of Different Methods of Cooking.

Lesson No. VIII.

MEATS.

I. General Statement—

1. Methods of rendering tough cuts tender.
2. Cooking meat with vegetables.
3. Digestibility of different cuts.
4. Nutritive value.
5. Care of meat:
 - a Cooked.
 - b Uncooked.

II. Tests for Good Meat—

1. Color.
2. Texture.
3. Proportion of fat.
4. Muscle fiber.

III. Principles Involved in Different Methods of Cooking—

1. Soups, broth and beef tea, to draw out all juices.
2. Soaking in cold water draws out juice, but little if any of the nutrients.
3. Stewing:
 - a To draw out part of the juice and leave the remainder in the meat.
 - b Put the meat in cold water and bring to bubbling heat.

IV. How to Use Left-overs—

1. Stew.
2. Hash.
3. Croquettes.
4. Meat balls.
5. Nutritive value increased by addition of other ingredients.

V. Cured Meat—

1. Ham.
2. Bacon.
3. Side meat.
4. Rendering and clarifying fat.
5. Saving scraps for frying, shortening, etc.

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Lesson No. IX.

BREAD.

“Remember thy bread and bake it well, for he will not be well kept that eateth his bread as dough.”

I. History—

1. Breads of different people of the world.
2. What portion eat wheat and light bread.
3. Other bread materials:

a Chestnuts.	d Potatoes.
b Iceland moss.	e Bark of trees.
c Corn.	f Roots of plants.
g Rice.	

II. Process of Making Bread—

1. Mixing.
2. Kneading.
3. Raising.
4. Baking.

III. Materials—

A—Flour.

1. Whole wheat.
2. Graham.
3. Roller mill.

Experiments with flour—

- To show the presence of starch.
- To show the presence of water and mineral matter.
- To separate gluten from the starch.

B—Yeast.

1. Experiments showing upon what food yeast feeds and under what conditions it grows.
2. Yeast products.

Mastication of Bread Important. Why.

IV. The use of Left-overs and Bread Crumbs—

1. Stuffing for meats.
2. Simple and digestible desserts.
3. Deep fat frying.
4. Muffins and batter bread.

V. Essentials of Successful Home Bread-making—

1. Good flour (not necessarily most expensive).
2. Good yeast.
3. Dough the right consistency.
4. Control of temperature at all stages.

QUICK BREADS.

I. Composition or Ingredients—

1. Dry materials.
2. Liquid.

3. Shortening.
4. Leavening.
5. Salt.

II. Leavening Agents—

1. Baking powder.
2. Soda and cream of tartar.
3. Soda and sour milk.

4. Soda and molasses.
5. Air by beating.
6. Water.

III. Order of Combination—

1. Dry materials.
2. Shortening.
3. Liquid.

4. Leavening.
5. Kneading.
6. Rolling.

IV. Kinds of Quick Breads—

A—Batters—

1. Pour.
2. Drop.

B—Doughs—

1. Soft.
2. Stiff.

V. Heat for Baking—

1. Batters—Sizzling hot pan and quick oven.
2. Doughs—The oven should be hot enough to brown a paper in four minutes.

VI. Experiments Showing the Effect of Leavenings—

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Bulletin No. 389—Bread and Breadmaking.

Story of Bread, by E. L. Barker.

History of a Mouthful of Bread, by Jean Mace.

Bulletin No. 324—Wheat, Flour and Bread.

This lesson may be correlated with—

Nature Study.

Geography.

Physiology.

Arithmetic.

Lesson No. X.

SALADS.

I. Materials—

1. Vegetables, fruits (uncooked).
2. Vegetables, fruits (cooked).
3. Cold cooked meats.
4. French dressing.
5. Boiled dressing.
6. Mayonnaise.

II. Nutritive Value—

1. Vegetables and fruits furnish:
 - a Minerals.
 - b Starch.
 - c Bulk.
 - d Water.
2. Meats furnish:
 - a Protein.
 - b Fat.
 - c Minerals.
3. Dressings furnish:
 - a Fat.
 - b Acid.

III. Essentials of a Well-made Salad—

- 1. Materials fresh and cold.
- 2. Flavors well combined.
- 3. Dressing well seasoned.
- 4. Appearance attractive.

IV. Suggestions for School Lunches—

- 1. Fall salads:
 - a Tomato.
 - b Beet.
 - c Cold slaw.
 - d Apples and nuts.
- 3. Spring salads:
 - a Cress.
 - b Cress and eggs.
 - c Lettuce.
 - d Asparagus.
- 2. Winter salads:
 - a Potato.
 - b Salmon.
 - c Meat.

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Elements of the Theory and Practice of Cookery—Williams and Fisher.

Practical Cooking and Serving—Janet McKenzie Hill.

Lesson No. XI.

SCHOOL SOCIALS.

I. Mothers' Meetings—

- 1. Refreshments:
 - a Wafers and boiled custard.

II. Box Supper—

- 1. Refreshments:
 - a Candy, Sandwiches, potato chips, doughnuts and dressed eggs.

III. Ice Cream Supper—

- 1. Refreshments:
 - a Ice cream, wafers, cake, candy.

The School Social as an Important Factor—

- I. In connecting home and school.
- II. In awakening and holding the interest of the community in the school.
- III. In furnishing the right kind of social gathering, making the school and church the center of community life.
- IV. In teaching valuable lessons in the economy, preparations and serving of quantities of food.
- V. In fitting the children to take their places in the social and church work of the community.
- VI. In raising funds for church and school improvement.
- VII. In teaching the valuable lesson that each child has a share in the betterment of the community as well as in equipping the school.

Lesson No. XII.

BEVERAGES.

I. *Classes of Beverages*—

1. Acid:	4. Stimulating:
a Lemonade.	a Tea.
b Punch.	b Coffee.
c Fruit juices.	c Chocolate.
2. Albuminous:	d Cocoa.
a Albuminized milk.	
3. Starchy, Cereal products—	
a Rice.	
b Barley.	
c Oatmeal.	

II. *Constituents*—

1. Alkaloids:	
a Caffein in coffee.	
b Theine in tea.	
c Theo-bromine in cocoa.	
2. Astringent:	
a Tannin.	
3. Volatile oils—give flavor and aroma.	

III. *Uses of Beverages in the Body*—

1. In health.
2. In sickness.

Lesson No. XIII.

SOUPS.

I. *Value of Soups in the Diet.*

II. *Classes*—

1. With meats.
2. Cream soups—a combination of white sauce and strained vegetables or ground meat.

III. *General Directions for Making Stock.*

IV. *Hints About Soup Making.*

V. *Breads to Be Served with Soup.*

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 No. 34. Meats: Composition and Cooking.

Lesson No. XIV.

CHEESE.

I. Classes Used in American Homes—

- 1. American.
- 2. Foreign.

II. Composition—

1. Protein.	4. Carbohydrates.
2. Fat.	5. Ash.
3. Water.	

III. Uses in the Diet—

- 1. Small quantities chiefly for flavor.
- 2. Large quantities for nutritive value and flavor:
 - a Cheese dishes as meat substitutes.
 - b Vegetables cooked with cheese.
 - c Salads, sandwiches, etc.
 - d Pastry, sweets, etc.

IV. Digestibility—

- 1. Comparison with other foods.

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- No. 244. Food Value of Cottage Cheese.
- No. 202. Manufacture of Cottage Cheese.
- No. 166. Cheese Making on the Farm.
- No. 487. Cheese and Its Economical Uses in the Diet.

Lesson No. XV.

GELATINE.

I. Source—

- 1. Commercial.
- 2. Home.

II. Digestibility—

- 1. Easily digested in stomach.
- 2. Quickly absorbed in small intestines.
- 3. Value in disease.

III. Principles of Preparation—

- 1. Swells in cold water.
- 2. Soluble in boiling water.
- 3. Solidifies on cooling.

IV. Methods of Preparation—

- 1. Plain.
- 2. With fruit.
- 3. With cereal.
- 4. Salad.

Lesson No. XVI.

DEEP-FAT FRYING.

I. Use of Fat in the Body—

- 1. Non-conductor of heat.
- 2. Prevents shock.
- 3. Gives symmetry to the form

II. Source—

- 1. Animal:
 - a In bone marrow.
 - b Adipose tissue.
 - c Milk.
- 2. Vegetable:
 - a Seeds.
 - b Nuts.

III. Constituents—

- 1. Stearine. Fats rich in stearine are:
 - a Mutton tallow.
 - b Beef fat.
 - c Lard.
- 2. Palmitin. Fats rich in palmitin are:
 - a Human fats.
 - b Palm oil.
- 3. Olein. Fats rich in olein are:
 - a Cod-liver oil.
 - b Sperm oil.

IV. Chemical Composition—Fatty Acid and Glycerine.

V. Digestion—

- 1. Emulsification.
- 2. Saponification.
- 3. Absorption.

VI. Cooking with Fat—

- 1. Small amount not healthful.
- 2. High temperature important.
- 3. Prevention of absorption in cooking.
- 4. Re-using.
- 5. Clarifying.

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- No. 36. Cotton Seed and Its Products.
- No. 131. Household Tests for the Detection of Oleomargarine and Renovated Butter.
- No. 122. Nuts as Food.

Bureau of Chemistry Bulletin:

- No. 77. Olive Oil and Its Substitutes.

Lesson No. XVII.

VEGETABLES.

I. Classification—

1. Leaves and stalks.	5. Flowers and fruits.
2. Bulbs.	6. Seeds.
3. Tubers and roots.	7. Fungi.
4. Succulent roots.	8. Condiments and accessories.

II. Structure—

1. Framework—cellulose.

III. Composition—

1. Edible portion.	d Protein.
a Water.	e Carbohydrate.
b Mineral salts.	
c Fat.	
2. Refuse.	

IV. Preparation for the Table—

1. Boiling.	5. Salads.
2. Baking.	6. Stuffed.
3. Frying.	7. Escalloped.
4. Sautéing.	

V. Rules for Cooking Vegetables—

1. Fresh.
2. Dried.

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Farmers' Bulletins:

No. 256. Preparation of Vegetables for the Table.
No. 265. The Home Vegetable Garden.
No. 295. Potatoes and Other Root Crops as Food.
No. 342. Cooking Beans and Other Vegetables in the Home.

Lesson No. XVIII.

CANDY.

I. Sugars—

1. Source:	d Sugar cane.
a Fruit.	e Sugar beet.
b Green vegetables.	f Maple.
c Milk	
2. Composition.	

II. Digestion and Value as Food.

Danger of excess.

III. Adulterations of Confectionery.

IV. Candies Are Classified as to Different Stages of Sugar Cooking.

1. Soft Ball: The sugar and water cooked together until when dropped into cold water it forms a soft ball. Temperature, 238° F.
 - a Fondant.
 - b Fudge.
 - c Bonbons.
2. Hard Ball: Instead of a soft ball, the portion dropped into cold water should form a firm, hard ball. Temperature, 254° F.
3. Crack Stage: The portion instead of forming a ball, becomes snappy and brittle. Temperature, $260-275^{\circ}$ F.
 - a Pull candy.
 - b Divinity.
 - c Popcorn balls.
4. Hard Crack: As soon as dropped into cold water, the portion becomes very hard and brittle.
 - a Peanut brittle.
5. Caramelization:
 - a Flavoring (golden brown stage).
 - b Color gravies and soups (dark red stage).

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No. 93. Sugar as Food.
No. 135. Sorghum Sirup Manufacture.
No. 329. Cane Sugar and Beet Sugar.
American School of Home Economics: Lessons in Cooking.

Lesson No. XIX.

FROZEN DISHES.

I. Classification—

1. Ice cream:	2. Sherbets:
a Custard.	a Milk.
b Uncooked.	b Water.
c Gelatine.	3. Ices:
	a Water and fruit juices.

II. Dietetic Value.

1. Comparative.
2. Digestion.

III. General Principles—

1. Freezing.
2. Packing.
3. Moulding.
4. Freezing in small quantities.

Lesson No. XX.

SERVING A MEAL.

I. The Dining Room—

1. Well lighted and ventilated.
2. Necessary furniture.
3. Linens.
4. Laying the table.
 - a Silence cloth.
 - b Cloth.
 - c Centerpiece—decoration.
 - d Cover.

II. Passing Food.

III. Order of Serving.

IV. Rules for Guests.

BIBLIOGRAPHY.

The Up-to-Date Waitress—Janet Hill.

Other Outlines for Talks

OTHER OUTLINES FOR TALKS.

NO. I. SEWING AND LAUNDERING.

I. Purpose—

To give the pupils a working knowledge of:

1. Principles of plain sewing.
2. Simple drafting and designing.
3. Selection of suitable material.
4. Hygiene in relation to clothing.
5. Care and repair of clothing.

II. Cleaning and Laundering—

1. Soil:

- a Organic.
- b Inorganic.
- c Stains.

4. Finishing processes:

- a Starching.
- b Blueing.
- c Drying.
- d Sprinkling.
- e Ironing.
- f Airing.
- g Folding.

2. Processes:

- a Dry.
- b Wet.

3. Agents.

- a Water—hard and soft.
- b Soap, borax, ammonia, salsoda.
- c mechanical movements.

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Sewing:

A Sewing Course—Mary S. Woolman.

Textiles and Clothing—Kate H. Watson.

Some Points in Choosing Textiles—Charlotte Gibbs.

Household Textiles—Charlotte Gibbs, University of Illinois.

Laundering:

The Chemistry of Cooking and Cleaning—Richards & Elliott.

Approved Methods of Home Laundering (free)—Proctor & Gamble, Cincinnati, Ohio.

NO. II. THE SOIL.

I. Constituents—

1. What is fertility?
2. Sixteen elements necessary to plant life.
3. Seven most essential—where to be found.

II. Fertilizers—

1. Bought—contain three of the necessary elements.
2. The best—barnyard products and decayed vegetable matter.

III. Moisture Retained by—

1. Deep plowing.
2. Plowing under vegetable matter—peas and clover sod.

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Farmers' Bulletins:

- No. 245. Renovation of Wornout Soils.
- No. 257. Soil Fertility.
- No. 266. Management of Soil to Conserve Moisture.
- No. 406. Soil Conservation.
- No. 631. Farm Fertilizers.

University of Tennessee Bulletins:

- No. 78. The Soils of Tennessee—Chemical Composition and Fertilizer Requirements.
- No. 91. Relation of Temperature and Rainfall to Crop Systems and Productions.
- No. 87. The Relation of the Weather Service to the Farmers of Tennessee.

NO. III. THE SCHOOL GARDEN.

I. Value of the Individual School Garden—

1. Educational value—each child goes through all the steps of preparation and production.
2. Gives skill and agility.
3. Work to be done systematically.
4. Idea of ownership, rights, greater industry, respect for property rights.
5. Greater individual responsibility and interest.

II. Type of Plants to Be Used—

1. Vegetables.
2. Flowering plants.
3. Cuttings.

*III. Window Boxes for School Rooms—**IV. Decoration of School Grounds—*

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Farmers' Bulletins:

- No. 218. The School Garden.
- No. 408. School Exercises in Plant Production.
- No. 409. School Lessons on Corn.
- No. 428. Testing Farm Seeds in the Home and in the Rural School.

Bureau of Plant Industry Document:

- No. 433. Directions for Making Window Gardens.

NO. IV. TEXTILES AS CONNECTED WITH HISTORY
AND GEOGRAPHY.

I. History—

1. Parallel study of the development of the textile industry and the various stages of man's civilization.
2. Spinning and weaving—methods of the ancients.
3. Stories of wonderfully woven and embroidered fabrics given in the Bible.
4. Mention of spinning wheel, looms, sewing machine and cotton gin.

II. Geography—

1. Source of various fiber materials, wool, silk, cotton, ramie, merino, pineapple fiber, etc.
2. Study of fibers characteristic of different countries—the conditions under which fiber and cloth are produced.
3. Study of present tribes in uncivilized state and their method of spinning and weaving.

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Farmers' Bulletins:

No. 274. Flax Culture.
No. 33. The Cotton Plant: Its History, Botany, Chemistry, Enemies and Uses.

Yearbook Reprint:

No. 313. The U. S. Department of Agriculture and Silk Culture.

Bureau of Plant Industry:

Circular No. 57. Cultivation of Hemp in United States.
Story of the Cotton Plant—F. Wilkinson.
Textiles and Clothing—Kate H. Watson.

NO. V. SANITATION.

I. Home Sanitation Includes—

1. Abundance of sunlight.
2. Abundance of fresh air.
3. Use of unslaked lime in damp or shady spots.
4. Satisfactory screening of all openings.
5. Uncontaminated well, springs and cisterns.
6. Prompt disposal of garbage.
7. Proper drainage, eliminating stagnant pools is necessary to prevent mosquito breeding.
 - a Yellow fever mosquito.
 - b Malarial mosquito.
 - c Malaria cycle.

II. Public Sanitation—

1. Danger of spitting in public places.
2. Civic improvement:
 - a Streets.
 - b Alleys.
3. Schools.
4. Public parks and playgrounds.

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Farmers' Bulletins:

- No. 459. House Flies.
- No. 345. Some Common Disinfectants.
- No. 377. Harmfulness of Headache Mixtures.
- No. 155. How Insects Affect Health in Rural Districts.
- No. 444. Remedies and Prevention Against Mosquitoes.
- No. 450. Some Facts About Malaria.
- No. 478. How to Prevent Typhoid Fever.
Sanitation in Daily Life, Mrs. E. H. Richards.
Primer of Sanitation, Ritchie.

NO. VI. FIRST LESSONS IN FOOD AND DIET.

I. *The Body Constituents*—

- 1. Source.
- 2. Functions of each in the body.
- 3. Percentage of each necessary for the balanced diet—the food unit.

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Farmers' Bulletins:

- No. 454. Food and Diet in the United States.
- No. 142. Principles of Nutrition and Nutritive Value of Food.

Bulletin American School Home Economics:

- Food Values, Practical Method (in Diet Calculation).
- First Lessons in Food and Diet—Mrs. E. H. Richards.

**Recipes
for
Domestic Science Lessons
in
State Institutes**

RECIPES FOR DOMESTIC SCIENCE LESSONS IN STATE INSTITUTES.

Lesson No. 1.

POTATOES.

BOILED POTATOES.

Wash the potatoes, and put them into boiling water. Cook till they can be pierced with a fork. Drain off the water, set the vessel on the back of the stove to dry the potatoes; and, if served with the skin on, cut a gash in each potato as they are sent to the table.

POTATOES WITH CREAM SAUCE.

Cut the boiled potatoes into dice half an inch square. Pour over each quart of potatoes one cup of white sauce No. 3 (see milk lesson), to which is added $\frac{1}{2}$ teaspoon more of salt and $\frac{1}{4}$ teaspoon of pepper.

BAKED POTATOES.

Wash the potatoes and cook them on the rack in the stove until they are soft. Serve at once.

SCALLOPED POTATOES.

Put the "potatoes with cream sauce" into a baking dish, alternating a layer of crumbs with several spoonfuls of potato. Put crumbs on last, dot over with butter and bake brown.

CREAMED POTATOES.

2 cups boiled mashed potatoes.	$\frac{1}{4}$ cup hot milk.
2 tablespoons butter.	1 teaspoon salt.
Dash of white pepper.	

Stir the butter, milk, and seasoning into the potato, cream well, and serve hot. Set in the oven for a few minutes before serving, if not hot enough.

STUFFED POTATOES.

Bake the potatoes on the rack of the oven. Cut them into halves, and remove the inside, keeping the skins in shape. Prepare as for creamed potatoes, refill the skins, and bake till a delicate brown. Grated cheese may be added.

FOR SALAD (See Salad Lesson).

DELMONICO POTATOES.

Use the recipe for scalloped potatoes, putting in cheese instead of crumbs.

POTATO CHIPS.

Peel the potatoes, put in cold water. Cut very thin with a potato slicer and leave in cold water until crisp. Change the water frequently. Dry between a towel and fry in deep fat.

COD-FISH BALLS.

1 cup cod-fish.	1 egg.
2 cups mashed potatoes.	$\frac{1}{2}$ tablespoon butter.
Dash of pepper.	

Wash the fish in cold water. Cook the cod-fish and potatoes together in boiling water until soft. Drain through a strainer, mash thoroughly, stir in the other ingredients. Shape into balls, roll in bread crumbs, then in egg, then bread crumbs again. Fry in deep fat one minute and drain on brown paper. Fat should be hot enough to brown a bread crumb in one minute.

CANDIED SWEET POTATOES.

4 medium potatoes.	$\frac{1}{2}$ teaspoon cinnamon.
1 cup sugar.	2 cups water.
3 tablespoons butter.	

Pare the potatoes and cut into slices $\frac{1}{4}$ of an inch thick. Arrange in a baking dish, and pour over them the water, in which has been mixed the butter, sugar and cinnamon. Bake slowly for a long time till the water is absorbed and the potatoes are brown. Cold boiled potatoes may be used, in which case decrease the water.

Lesson No. II.

MILK.

Milk must be kept free from impurities of all kinds. The stable, the cow, the milker and the vessels must be clean, and the water used to wash the udder must be pure from organic matter and disease germs.

Sterilizing (boiling) or Pasteurizing (heating to 170° F.) makes the milk less desirable than the fresh, clean milk. Milk should be cooled as soon as possible after milking, and should be kept in a cool place in covered vessels.

To Pasteurize Milk—Set the bottle containing the milk on a rack in a vessel large enough to permit the cover to fit well down over the vessel. Pour into the vessel enough water to cover the rack just below the bottles. Put on the pot cover and let the water simmer twenty minutes. Cool as quickly as possible, and do not uncork the bottles till ready to use the milk.

WHITE SAUCE.

No.	Milk.	Flour.	Butter.	Salt.
I.	2 cups	1 tablespoon	1 tablespoon	$\frac{1}{2}$ teaspoon
II.	2 cups	2 tablespoons	2 tablespoons	$\frac{1}{2}$ teaspoon
III.	2 cups	3 tablespoons	3 tablespoons	$\frac{1}{2}$ teaspoon
IV.	2 cups	4 tablespoons	4 tablespoons	$\frac{1}{2}$ teaspoon
V.	2 cups	5 tablespoons	5 tablespoons	$\frac{1}{2}$ teaspoon
VI.	2 cups	6 tablespoons	6 tablespoons	$\frac{1}{2}$ teaspoon

GENERAL DIRECTIONS.

Melt the butter in a saucepan and stir in the flour. Scald the milk and pour it slowly into the butter and flour mixture. Stir constantly, cooking till smooth.

CREAM SOUPS.

To No. II. or III. of the above sauce recipes may be added 1 cup of cooked vegetables that has been forced through a sieve. The usual ones are peas, potatoes, onions, celery, beans, spinach and corn. Minced fish, as salmon, may be used also.

Stewed tomatoes require $\frac{1}{4}$ teaspoon of soda to each cup of tomato, well mixed in just before combining it with the cream sauce. More salt must be added to the recipe, and pepper, celery salt, bay leaf or cloves vary the flavoring.

BOILED CUSTARD.

1 quart sweet milk.	4 eggs.
1 cup sugar.	2 teaspoons flavoring.
$\frac{1}{8}$ teaspoon salt.	

Scald the milk, beat the yolks and sugar together; pour the scalded milk into the eggs and sugar; beating all the time. Turn the mixture back into the double boiler and cook till the mixture coats the spoon. Remove from the fire, cool slightly, and mix in the beaten whites of the eggs. Add salt, cool and flavor. This custard may be frozen for ice cream. The addition of one pint of cream makes a richer dish.

To Freeze Ice Cream.—Have the freezer thoroughly scalded and cooled. Crush the ice into small pieces, and have ready coarse rock salt. Set the can into the tub, put in the beater, and see that it works easily. Pour in the mixture to be frozen, put the lid on, and adjust the crank. Fill the space between the tub and can with a mixture of crushed ice and salt, four parts of ice to one of salt. Turn the crank steadily till the mixture freezes, keeping the tub filled with ice and salt. See that the hole near the top of the tub is kept open, but do not drain off water from the bottom. When the mixture is frozen, remove the beater and smooth the cream on top. Put on the cover; stop the hole with a cork; pack more salt and ice in the tub. Cover the can with several inches of chipped ice and sprinkle salt over the top. Cover the tub with a blanket and set away for two hours to ripen the cream. Uncover, stir with a spoon, and repack till wanted.

CUP CUSTARD.

Instead of turning the custard mixture into a double boiler, pour it into cups, and dust over with nutmeg. Set the cups in a pan of hot water and bake in a slow oven till set.

COTTAGE CHEESE.

1 quart thick clabber.	Cream.
$\frac{1}{4}$ teaspoon salt.	

Heat the clabber, and when whey separates, pour all into a cheese press or a cheese cloth bag. Set to drip over night, or till all the whey is removed. Put into a bowl and stir in the salt and enough cream to soften. The salt may be added at first, and the mould served in shape, pouring cream over it.

SOAP.

6 lbs. grease.	1 quart cold water.
1 can lye.	2 tablespoons ammonia.

Save all bits of grease and drippings, and fat that burns or becomes rancid. When you have six pounds, put it in a vessel with a generous amount of hot water and boil twenty minutes. Cool suddenly by putting in cold water or on ice. When the fat is cold remove it in a solid cake and scrape off the impurities clinging to the bottom. Put this clean fat in a dishpan, and melt again. Put the lye in a tin bucket and pour over it the cold water, stirring till dissolved. Let it stand till cold, and then pour it into the melted fat that has been removed to a cool place. Put in two tablespoons of ammonia and stir constantly. In half an hour the soap will set. Let it stand till cold, and then cut into cakes. This makes a good, hard soap.

Lesson No. III.

EGGS.

SCRAMBLED EGGS.

5 eggs.	$\frac{1}{2}$ teaspoon salt.
$\frac{1}{2}$ cup milk.	$\frac{1}{8}$ teaspoon pepper.
2 tablespoons butter.	

Beat eggs slightly with silver fork; add salt, pepper, and milk. Heat omelet pan, put in butter, and when melted turn in the mixture. Cook until of creamy consistency stirring and scraping from the bottom of the pan.

SCRAMBLED EGGS WITH TOMATO SAUCE.

6 eggs.	4 tablespoons butter.
$1\frac{3}{4}$ cups tomatoes.	1 slice onion.
2 teaspoons salt.	$\frac{1}{2}$ teaspoon salt.
	$\frac{1}{8}$ teaspoon pepper.

Simmer tomatoes and sugar five minutes; fry butter and onions three minutes; remove onion, add tomatoes, seasonings and eggs slightly beaten. Cook same as scrambled eggs. Serve with entire wheat or brown bread toast.

POACHED EGGS.

Put old-fashioned muffin rings in a pan of boiling water deep enough to cover the ring; add one tablespoon lemon juice or vinegar to every quart of water. Break eggs one at the time in a cup or saucer. Slip it into the mould, being careful to keep yolk whole. Put vessel back where water cannot boil. Eggs may be poached in milk or tomato sauce. Put the hot sauce or scalded milk into a baking dish. Slip in eggs and put dish in hot water. Bake till set and serve from dish.

OMELET.

2 eggs.	Dash of pepper.
2 teaspoons water.	2 tablespoons butter.
	$\frac{1}{8}$ teaspoon salt.

Beat the yolks with pepper and salt, add the water. Beat the whites, fold into them the yolks, melt the butter in a hot omelet pan and pour in the mixture. Cook with a cover on until omelet begins to brown on edges. Remove to cooler place on stove till set. Slip a knife around the edge of

the pan and fold over, tilting the pan to aid in folding. Serve at once on a hot plate. Chopped meat or cheese may be sprinkled on the omelet just before handling. White sauce or tomato sauce may be poured around the omelet on the plate on which the omelet is to be served.

Lesson No. IV.

SCHOOL LUNCHES.

GENERAL DIRECTIONS.

Cut bread thin for all sandwiches. Cream butter in cold weather to make it spread well.

EGG SANDWICHES.

Prepare the buttered slices and put in a filling of seasoned egg yolk that has been forced through a sieve and moistened with melted butter or salad dressing.

HAM AND EGG SANDWICHES.

Grind ham (either fried or boiled) and add to the above recipe.

BREAKFAST BACON AND LETTUCE.

Chop breakfast bacon which has been fried crisp. Mix with chopped lettuce and a little salad dressing. Spread on buttered bread.

COTTAGE CHEESE AND GREEN PEPPERS.

Chop peppers fine, mix with cottage cheese and butter. Spread on slices of bread.

Lesson No. V.

CEREALS.

APPLE AND CEREAL.

3 apples.

2 cups cooked cereal.

4 tablespoons sugar.

1 cup water.

Make a syrup of the water and sugar. Pare and core the apples and cook till tender in the syrup. Put a spoonful of cereal into a cup; set an apple on this and fill the cup with more of the cereal. Chill and turn out. Serve with the fruit juice or with cream and sugar.

FRIED HOMINY.

$\frac{1}{2}$ cup flour.

$\frac{1}{8}$ teaspoon salt.

8 slices cold cooked hominy.

1 egg.

$\frac{1}{4}$ cup sweet milk.

4 slices bacon.

Make a batter of the flour, egg and milk; add the salt; and dip the

hominy into the mixture. Fry the bacon crisp and brown the hominy in the fat.

SPOON BREAD.

2 cups cold cooked hominy.	$\frac{1}{2}$ cup cornmeal.
2 tablespoons butter.	1 teaspoon baking powder.
2 eggs.	2 cups sweet milk.
	$\frac{1}{2}$ teaspoon salt.

Scald the meal in the milk; beat the eggs and add to them the salt and hominy. Cool the milk slightly and combine mixtures. Bake in a buttered pudding dish. Several slices of bacon fried brown and the fat may be used instead of the butter.

RICE PILAU.

$\frac{1}{2}$ cup rice.	1 cup tomato sauce.
1 tablespoon butter.	$\frac{1}{8}$ teaspoon pepper.
2 teaspoons salt.	$\frac{1}{2}$ teaspoon chopped onion.
	1 chicken.

Cut the chicken as for frying, and broil it till brown in the butter in which the onion has been cooked. Turn into a covered saucepan; add enough water to cover; and simmer till tender. Half an hour before serving add salt, tomato sauce, and rice. The chicken may be simmered till tender and the other ingredients cooked in another vessel and served with the chicken as a separate dish.

Lesson No. VI.

INVALID COOKING.

THICKENED MILK.

1 tablespoon flour.	1 cup milk.
	A few grains of salt.

Scald the milk in a double boiler, reserving 2 tablespoons. Make a smooth paste of the cold milk and flour. Pour this into the double boiler with the scalded milk and cook, stirring till the mixture thickens. Cover and cook for twenty minutes. Season with salt.

OATMEAL GRUEL.

$\frac{1}{2}$ cup of rolled oats.	$1\frac{1}{2}$ cups boiling water.
	$\frac{1}{2}$ teaspoon of salt.

Add oats mixed with salt to the boiling water, let it boil for two minutes, then cook over boiling water one hour. Strain and add milk or cream. Serve hot.

CORNMEAL GRUEL.

1 tablespoon fine cornmeal.	3 tablespoons of cold water.
$\frac{1}{2}$ tablespoon flour.	2 cups boiling water.
$\frac{1}{4}$ teaspoon salt.	Milk or cream.

Mix meal, flour, and salt; add cold water and stir until a smooth paste

is formed. Add this gradually to the boiling water, stirring constantly. Let boil one hour. Strain, bring again to boiling and add milk or cream. Serve hot.

CRACKER GRUEL.

1 tablespoon rolled and sifted cracker crumbs.	$\frac{3}{4}$ cup of milk. $\frac{1}{8}$ teaspoon of salt.
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Scald the milk, add crackers and cook over hot water for five minutes, then add salt. Serve hot.

ALBUMENIZED MILK.

1 or 2 egg whites.	$\frac{1}{2}$ cup of milk. A few grains of salt.
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Put the ingredients into a clean jar and shake until frothy. Turn into a glass for serving.

FLAXSEED LEMONADE.

2 tablespoons flaxseed. 2 cups boiling water.	2 tablespoons sugar. 2 tablespoons lemon juice.
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Pick over and wash the flaxseed. Cover with boiling water and let simmer for one hour. Strain and add lemon juice and sugar. Serve hot or cold. This is desirable in kidney troubles, and proves a soothing drink in throat and bronchial troubles.

JUNKET.

1 quart milk. 1 teaspoon vanilla.	1 junket tablet. 3 tablespoons sugar. 1 tablespoon cold water.
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Dissolve the junket tablet in cold water by letting it stand for ten minutes, crushing with a spoon. Heat the milk until barely lukewarm; add sugar and flavoring, then the junket tablet, stirring quickly; pour at once into the dishes in which it is to be served. Let stand without shaking in a warm place until firm. Place in a cool place until needed. The junket is made of rennet, which acts only in milk free from preservatives. Do not allow the milk to become hotter than lukewarm.

TAPIOCA CREAM.

$\frac{1}{4}$ cup pearl tapioca. $\frac{1}{2}$ cup cold water. 3 eggs.	3 tablespoons sugar. $\frac{3}{4}$ teaspoon vanilla. Salt. 2 cups milk.
--	--

Clean the tapioca and place in a double boiler with cold water, letting it stand for several hours. Add the milk and cook over hot water until each tapioca grain is transparent and soft. Beat the eggs, add the sugar, and beat until very light and thick. Add slowly to this the hot mixture, stirring constantly. Return to the double boiler and cook until the mixture coats a spoon. Remove from the fire, flavor and serve cold.

ICE CREAM FOR INVALIDS.

1 quart thin cream.	$\frac{3}{4}$ cup sugar. 2 teaspoons flavoring.
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Mix the cream and sugar, stir until the sugar is dissolved, then freeze.

LEMON JELLY.

$\frac{1}{2}$ box gelatine.	$\frac{3}{4}$ cup sugar.
$\frac{1}{2}$ cup cold water.	$2\frac{1}{2}$ cups boiling water.
2 lemons.	

Soak the gelatine in cold water for twenty minutes, add the boiling water, sugar, and grated rind of one lemon and the juice of two. Stir until the gelatine is dissolved, remove from the fire and strain. Cover with clean cloth and place on ice or in cold water to congeal. $\frac{1}{2}$ box of gelatine= $1\frac{1}{2}$ tablespoon of Knox gelatine.

ORANGE JELLY.

1 cup orange juice is substituted for one cup of boiling water in the above recipe.

Lessons No. VII and VIII.

MEAT

BROILED STEAK.

Trim steak, heat pan, rub with piece of fat. Lay in steak with fat towards handle, cook over coals, turn every ten counts. Allow eight minutes for steak one inch thick. This may be broiled in a pan.

BEEF.

Rolled Flank.
 $\frac{2}{3}$ to 4 lbs. flank steak.
 2 strips salt pork.
 1 onion.
 1 stalk celery.

Stuffing.

2 ct. bread crumbs.
1 t. chopped parsley.
1 t. chopped onion.
2 t. salt.
$\frac{1}{8}$ t. pepper.
2 T. melted butter.

Wipe meat and remove all membrane. Make stuffing by wetting bread crumbs with hot water. Add seasoning and butter. Spread over the meat and roll up. Tie or skewer it. Fry pork and brown beef by rolling it over in the pan. Place on a rack in a heavy iron kettle, put in onion and celery. Put in enough boiling water to almost cover the rack. Cover closely and bake slowly or simmer on top of stove for three hours. Renew water if it evaporates. Potatoes, carrots, or turnips may be put in around the meat one hour before it is done.

HAMBURG STEAK.

1 lb. lean beef.	3 crackers.
2 rings onion.	$\frac{1}{8}$ teaspoon pepper.
1 egg.	1 teaspoon salt.
1 tablespoon lard.	2 tablespoons flour.

Chop meat, removing all stringy pieces. Roll crackers and mix with egg, seasoning and meat. Make into balls, using 2 tablespoonsful for each ball. Dust with flour and flatten. Heat lard in pan and brown balls quickly over a hot fire. This may be made into a loaf and baked.

BOILED TONGUE.

Wash tongue and trim away rough end at base. Put on in boiling water and simmer until tender, add salt and any seasoning desired to the water. When cooked remove skin and press until cold.

HASH.

1 pint cooked meat.	2 T. butter or lard.
1 cup water.	$\frac{1}{2}$ t. salt.
1 cup diced raw potatoes.	$\frac{1}{8}$ t. pepper.
1 onion.	

Melt butter in a stew pan and cook onion in it. Add meat and seasoning. Let cook five minutes, add water and potatoes. Let simmer until potatoes are cooked.

BOILED HAM.

1 ham.	$\frac{1}{2}$ c. vinegar.
1 dozen cloves.	2 bay leaves.
1 dozen pepper corns.	

Wash well with a brush in cold water and soak over night in water in which a little soda or borax has been dissolved. Wash ham in warm water, but do not let ham soak in water. Put ham into the boiler, cover with hot water, add seasoning and simmer. Allow 20 minutes to the pound. Let ham cool in its own liquor, skin and serve. Ham may be boiled 2 hours then covered with paste of flour, brown sugar and water and baked 1 hour.

TRYING OUT FAT.

Use double boiler. There is no danger of burning, and the odor is much less noticeable than if heated just over the fire.

CLARIFYING FAT.

Pour boiling water on it, boil thoroughly and set away to cool. Solid fat may be removed in a cake and any impurities clinging to it may be scraped off. By repeating this process several times, a cake of clean-white fat is obtained. A slight burned taste, or similar objectionable taste may be removed by means of potatoes. After melting the fat put in thick slices of raw potatoes, heat gradually, when fat ceases to bubble and potatoes are brown, strain through a cloth and a wire strainer.

Lesson No. IX.

BREAD.

RAW POTATO YEAST.

4 Irish potatoes.	$\frac{1}{2}$ cup yeast.
$\frac{1}{2}$ cup sugar.	1 tablespoon salt.

Pare and grate the potatoes. Pour on to them enough boiling water to make a paste. Cool and add the other ingredients. Let rise till light and mix in enough meal to make a stiff dough. Form into cakes or cut into slices and dry in the air just out of the direct sunlight. Keep in a covered glass jar and use as needed.

LIQUID YEAST.

2 cups boiling water.	2 tablespoons flour.
1 cup hops.	1 yeast cake.
1 cup mashed cooked potatoes.	$\frac{3}{4}$ cup sugar.
$\frac{1}{2}$ cup salt.	$\frac{1}{2}$ gallon water.

Pour the boiling water over the hops and steep ten minutes. Pour off the liquid and add to it the potato, sugar, salt and flour. Beat well and add the half gallon of water boiling. When lukewarm mix in the yeast. Let stand twenty-four hours, removing the scum several times. Bottle the liquid and keep in a cool place. Use 1 cup of the liquid with an equal quantity of milk for making bread.

RAISED BREAD.

Sponge.

4 cups flour.	1 cup milk.
1 tablespoon sugar.	1 cup water.
3 tablespoons shortening.	$\frac{1}{2}$ yeast cake.

Scald the milk, put in the sugar, shortening, and three-fourths of the cup of cold water. Dissolve the yeast in the remaining one-fourth of a cup and add it and the flour to the mixture when cooled to lukewarm. Beat and let rise double its bulk.

Bread.

4 cups flour.	2 teaspoons salt.
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Sift the salt and flour together in a bowl and stir in the risen sponge. Use more flour, if necessary, to make a soft dough; turn on a board; and knead till smooth. Shape into loaves or rolls; put into greased pan, and let rise till nearly twice its bulk. Bake in a steady oven.

BUTTERMILK BISCUITS.

2 cups flour.	$\frac{1}{4}$ to $\frac{1}{2}$ teaspoon soda.
1 teaspoon salt.	$\frac{1}{2}$ to $\frac{3}{4}$ cups buttermilk.
3 tablespoons shortening.	

Sift the dry ingredients together, cut in the shortening with a knife, or work it in with the tips of the fingers. Mix in enough milk to make a soft dough. Roll out on a board till $\frac{1}{4}$ inch in thickness, cut out, and bake brown in quick oven.

WAFFLES.

- 2 cups flour.	$\frac{1}{4}$ teaspoon baking powder.
$1\frac{1}{4}$ cups sour milk.	1 teaspoon salt.
$\frac{1}{2}$ to 1 teaspoon soda.	2 eggs.
3 tablespoons shortening.	

Beat the eggs, add the milk and salt. Sift the baking powder with the flour and add it to the liquid. Pour in the melted lard and add the soda mixed with one tablespoonful of water. Cold mashed cereal—rice, hominy, or mush—may be substituted for some of the flour, using $\frac{1}{2}$ cup of cereal in place of $\frac{1}{4}$ cup of flour.

FLOUR BATTERCAKES.

Use the same recipe as waffles.

CORNMEAL MUFFINS.

$1\frac{1}{2}$ cups cornmeal.	$1\frac{1}{2}$ cups buttermilk.
$\frac{1}{2}$ cup flour.	$\frac{1}{2}$ to 1 teaspoon soda.
1 teaspoon salt.	1 egg.
	2 tablespoons lard.

Beat egg, add salt and milk. Sift the flour and meal together, then stir into it the liquid. Pour in the melted lard and add soda mixed with two tablespoonfuls of water. Pour into a hissing hot greased pan, and bake in a hot oven.

CORNMEAL BATTERCAKES.

Same as the above with $\frac{1}{4}$ cup more milk and additional soda (about $\frac{1}{8}$ teaspoonful.)

Lesson No. X.

SALADS.

FRENCH DRESSING.

$\frac{3}{4}$ tablespoons olive oil.	$1\frac{1}{2}$ teaspoons vinegar.
$\frac{1}{2}$ teaspoon salt.	$\frac{1}{8}$ teaspoon pepper.
	$\frac{1}{2}$ teaspoon sugar.

Put the oil into a bowl. Stir in the salt, pepper and sugar. Stir in the vinegar, a few drops at a time. Serve on lettuce. Lemon juice may be used for the vinegar. Onion juice and chopped parsley may be added when the dressing is for vegetables.

BOILED DRESSING.

2 egg yolks.	2 tablespoons butter.
2 tablespoons sugar.	1 cup vinegar.
1 teaspoon salt.	1 tablespoon corn starch.
$\frac{1}{4}$ teaspoon pepper.	1 tablespoon mustard.

Mix the butter, mustard, pepper, salt, and sugar in the vinegar. Place on the fire to heat. Beat the eggs in a double boiler with the corn starch. When the vinegar is hot, pour it into the eggs, stirring until the mixture thickens. Cool. One-fourth cup whipped cream folded in just before serving adds to the richness of the dressing.

MAYONNAISE.

1 teaspoon salt.	2 cups salad oil.
1 teaspoon powdered sugar.	3 tablespoons lemon juice or vinegar.
$\frac{1}{8}$ teaspoon white pepper.	
	2 egg yolks.

Have all the ingredients cold. Set the bowl containing the egg yolks into a bowl of crushed ice; add the salt, pepper and sugar; and beat well. Add two tablespoons of oil, a few drops at a time, stirring constantly. Now alternate oils with vinegar, putting in larger quantities each time. If the mixture curdles, add it to another egg yolk.

CHICKEN SALAD.

2 cups minced meat.	1 apple chopped.
$\frac{1}{4}$ cup boiled dressing.	3 cucumber pickles.
1 cup celery, chopped.	

Mix the ingredients and serve on cabbage or lettuce leaves or in tomato cups.

POTATO SALAD NO. I.

6 potatoes.	3 hard cooked eggs.
1 onion.	$\frac{1}{2}$ cup vinegar.
1 teaspoon salt.	1 teaspoon butter.
$\frac{1}{4}$ teaspoon white pepper.	1 teaspoon sugar.

Boil and peel the potatoes. Either mash them or cut them into dice. Heat the vinegar and add to it all the other ingredients but the eggs. Mash the egg yolks and pour over them the hot vinegar. Mix with the potatoes. Serve, garnished with the egg whites cut into circles and some of the mashed yolks.

CABBAGE SALAD OR COLD SLAW.

1 quart chopped cabbage.	Boiled dressing without the corn starch.
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Shred the cabbage, let stand in cold water till needed, drain and mix with the dressing.

WALDORF SALAD.

1 cup tart apples diced.	$\frac{1}{4}$ cup chopped nuts.
1 cup tender celery diced.	Lettuce leaves.

Toss apples, celery and nuts together lightly, dress with boiled dressing, and serve on lettuce leaves or in the apple shells.

ASPARAGUS SALAD.

1 cup cold asparagus tips.	Lettuce leaves.
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Wash lettuce carefully, arrange tips on the lettuce, dress with mayonnaise. Serve immediately.

Lesson No. XI.

SCHOOL SOCIALS.

LETTUCE SANDWICHES.

Wash the lettuce and crisp it by putting it on ice or in a covered bucket in a cool place. Butter the bread and put a leaf and a spoonful of salad dressing between the slices, letting the leaf extend over the edge.

EGG SANDWICHES.

Prepare the buttered slices and put between them a filling of seasoned egg yolk that has been forced through a sieve and moistened with melted butter or salad dressing. The white may be used separately or all may be ground together.

SARDINE SANDWICHES.

Remove bones and skin from sardines, mash, add an equal quantity of hard-boiled egg yolk and force through a sieve. Season with cayenne pepper and a little lemon juice or vinegar. Moisten, if necessary, with sardine oil and spread between slices of white and brown bread.

PEANUT SANDWICHES.

Grind peanuts and mix with melted butter, then spread between slices of brown bread or light bread.

NUT AND CHEESE SANDWICHES.

Grate the cheese and mix with equal parts of chopped nuts. Season with salt and cayenne pepper and mix with a little cream. Spread between slices of bread. Cottage cheese may well be used here. Sweet peppers may be cut into it.

CANDY LESSONS FOR USE IN SCHOOL SOCIALS.

PULL CANDY.

3 cups brown sugar.	1½ cups water.
3 tablespoons vinegar.	2 tablespoons butter.
Flavor, cook to crack degree and pull.	

CREAM CANDY.

3 cups granulated sugar.	2 tablespoons butter.
1½ teaspoons baking powder.	1½ cups boiling water.
1 teaspoon vanilla.	

Put baking powder in the sugar and mix thoroughly, add water. Place in saucepan on the stove and cook until the candy boils to large bubbles all over. Test by dipping a spoonful into cold water, if hard enough to begin to crack add butter and vanilla and cook for 2 minutes. Pour on to a greased platter and allow to cool. When thoroughly cool, take up and pull until white. Set in a warm place until it has creamed. Chocolate may be added to this and pulled in for chocolate cream. Coloring may also be added or different flavorings used.

DIVINITY.

1½ cups sugar (brown).	6 T. white sugar.
2 T. Karo Syrup or glucose.	1 egg white.
½ cup water.	Chopped nuts.

Cook sugar, glucose and water to a soft ball. Pour in a fine stream into the well beaten whites, beating constantly until half of syrup is in. Cook the rest of the syrup to the crack degree and pour it on the egg mixture which has been beaten constantly, add and beat until it begins to cream, mix in the vanilla and nuts and drop from spoon on oiled paper, or a greased platter.

FUDGE.

4 cups brown sugar.	3 tablespoons butter.
¾ cup milk.	

Put the ingredients into a saucepan and boil until the sugar threads from the prongs of a fork. Remove, put into a pan of cold water and

beat until the mixture begins to sugar. Pour on a buttered platter, when it begins to harden cut into squares with a buttered knife.

KISSES.

1 egg white.	$\frac{1}{8}$ teaspoon cream of tartar.
10 teaspoons sugar.	$\frac{1}{4}$ teaspoon flavoring.

Beat eggs and cream of tartar till stiff. Sprinkle in the sugar while beating, add vanilla at the last. Put in spoonfuls on an oiled paper, or put through a pastry bag on to the bottom of a baking pan. Bake for 40 minutes in a cool oven.

POPCORN BALLS.

1 cup white sugar.	$\frac{1}{4}$ cup water.
1 tablespoon butter.	3 quarts popped corn.

Boil sugar, water and butter together until it spins a thread. Mix in the corn, stirring rapidly so that every grain is coated. Form into balls. Roll in popped corn.

WAFERS.

1 egg.	2-3 cup of flour.
1 tablespoon butter.	$\frac{1}{4}$ teaspoon vanilla.
	1-3 cup of sugar.

Beat the egg, cream the butter, add the sugar. When well mixed, stir in the flour, making a stiff cake batter. Add vanilla. Cook in hot buttered wafer irons.

ICE CREAM (See Recipe).

BOILED CUSTARD (See Recipe).

POTATO CHIPS (See Recipe.)

DRESSED EGGS (See Recipe).

DOUGHNUTS.

1 $\frac{1}{2}$ cups flour.	1 $\frac{1}{2}$ teaspoons baking powder.
$\frac{1}{4}$ teaspoon salt.	$\frac{1}{2}$ teaspoon flavoring.
1 egg.	2 tablespoons milk.
2 tablespoons butter.	1-3 cup sugar.

Cream the butter, add sugar and egg (well beaten), add flavoring and salt. Stir this mixture into the flour, with which baking powder has been sifted. Make into a dough, add milk, if necessary. Roll out and cut in rings. Fry in deep fat, which is hot enough to brown a bread crumb in 1 minute. Drain on a brown paper and dust with sugar.

Lesson No. XII.

BEVERAGES.

BOILED COFFEE.

4 tablespoons coffee.	1 pint boiling water.
	$\frac{1}{4}$ egg white.

Scald coffee pot. Mix the egg and coffee with two tablespoons of cold water. Put this into the pot and pour on freshly boiling water. Boil from

2 to 6 minutes. Pour a little coffee from the spout to remove grounds and pour it back into the pot, adding also $\frac{1}{4}$ cup of cold water to settle the grounds that may be floating in the coffee. Egg shells may be used instead of egg to clarify the coffee.

TEA.

2 teaspoons tea. 1 pint boiling water.

Scald the tea pot, put in tea, and pour in the freshly boiling water. Steep for two minutes.

RUSSIAN TEA.

Put a slice of lemon in each cup, and pour in the hot tea.

ICED TEA.

Pour the hot tea into a vessel, add 2 tablespoons of sugar. Cool with ice, add lemon. If the hot tea is poured on the ice the flavor is better.

ICED TEA PUNCH.

1 quart tea.	6 lemons.
1 can chunk pineapple.	2 cups sugar.
1 quart carbonated water.	

Mix the lemon juice, sugar, and pineapple with the cold tea. When ready to serve, add two pounds of ice, shaved fine, and the carbonated water. Cherries, strawberries, raspberries, oranges, or bananas may be used in this punch.

COCOA.

3 tablespoons cocoa.	Pinch of salt.
3 tablespoons sugar.	1 pint scalded milk.
$\frac{1}{4}$ teaspoon vanilla.	

Mix the sugar, cocoa, and salt in a double boiler, stir in the scalded milk, and cook till smooth. Just before serving, add flavoring and beat with dover egg-beater.

CHOCOLATE.

1 ounce chocolate.	2 cups scalded milk.
3 tablespoons sugar.	1 cup boiling water.
$\frac{1}{2}$ teaspoon flavoring.	

Melt the chocolate, stir in the water a little at a time. Add sugar and cook two minutes. Pour this into the double boiler with the milk. Add flavoring (vanilla), beat, and serve.

ALBUMENIZED MILK.

(See Lesson VI.)

FLAXSEED LEMONADE.

(See Lesson VI.)

OATMEAL CRUEL.

(See Lesson VI.)

Lesson No. XIII.

SOUP.

SOUP STOCK.

Stock is the broth resulting from long, gentle cooking of meat or poultry. Pieces of tough meat and bone, such as shin, neck, oxtails and calf's head, which would be of little value if prepared in other ways, are used for soups. If cut in small pieces, more nutriment will be extracted by the water.

There should be about twice as much meat as bone. About one quart of cold water is used to each pound of meat and bone. About one-fourth pound of mixed vegetables is allowed for each pound of meat. These should be added with the other seasonings after the meat has cooked two hours. Salt may be put in at first. Stock should cook slowly for four hours or more, and then strained. Such stock will keep in a cool place for several days.

Raw or cooked bones and fresh trimmings from roasts and steaks, the water in which fresh meat, poultry, rice or any young vegetables have been cooked may be combined to make a stock useful for sauces and hashes as well as for soups. Bits of onions, pepper, celery, parsley are used in seasoning. For vegetable soups use carrots, potato, turnip, celery, cabbage, tomatoes, beans and peas, and okra.

See Lesson No. II for Cream Soups.

Lesson No. XIV.

CHEESE.

WELSH RAREBIT.

1 cup cheese.	$\frac{1}{4}$ teaspoon salt.
$\frac{1}{2}$ cup milk.	$\frac{1}{4}$ teaspoon mustard.
1 tablespoon butter.	Dash of cayenne.

TOAST OR CRACKERS.

Scald the milk and add to it the seasonings, butter, and the cheese that has been grated or cut into cubes. Stir till the mixture is thick and smooth. Serve on toasted crackers or toasted bread. A well beaten egg may be added just before serving.

COTTAGE CHEESE.
(See Milk Lesson.)

DELMONICO POTATOES.
(See Potato Lesson.)

MACARONI AND CHEESE.

2 cups macaroni broken into pieces.	$\frac{1}{4}$ cup crumbs.
$\frac{1}{2}$ cup cheese, grated.	2 cups white sauce, No. 2. Dash of cayenne.

Cook the macaroni till soft in boiling salted water. Drain and place in a baking dish. Pour over it the white sauce and sprinkle on the cheese, adding the cayenne and crumbs, if desired. Bake slowly till done. Tomato sauce may be substituted for the white sauce.

Rice or potatoes instead of macaroni make a pleasing variation in the above.

Lesson No. XV.

GELATINE.

For moulding, china and glass are much more preferable than tin. Wet mould in cold water and fill to overflowing.

To unmould, thick moulds may be put in very warm water and moved around until contents is loose. Thin or tin molds may be dipped into very tepid water.

DOUBLE MOULDING.

Put a mould into a pan of ice and pour in enough gelatine to cover the bottom of the mould one inch deep. When hard, place a smaller mould on the jelly and fill the space between the two moulds with more jelly. Put ice in the inner mould to steady it. When the rim of the jelly is set, pour warm water into the inner mould and pull it gently out. Fill the center cavity with a jelly or charlotte and let this set. Turn out on a dish when cold. Cut into slices and serve.

LEMON AND ORANGE JELLIES.

(See Lesson No. VI.)

SNOW PUDDING.

When lemon or orange jellies begin to set, whip it with a dover beater until white and foamy.

GELATINE AND SHREDDED WHEAT.

1½ tablespoons gelatine.	$\frac{3}{4}$ cup sugar.
1 cup cold water.	2 lemons.
	2 cups boiling water.

Cook apples as given under cereals (Lesson No. V). Toast shredded wheat biscuit, split, and put an apple between the halves. Put in mould and fill the mould with gelatine.

CHARLOTTE RUSSE.

1-3 box of gelatine.	2-3 cup hot water.
2-3 cup cold milk.	$\frac{1}{2}$ cup sugar.
1 pint cream.	1 teaspoon flavoring.

Whip the cream. Soak gelatine in cold milk, add sugar and hot water and stir till the gelatine is dissolved. Remove from the fire, cool, and

add flavoring. As it begins to set, whip with a Dover egg-beater and beat into it the cream.

FRUIT MOUSSE.

1 pint fruit.	1 cup sugar.
2 tablespoons gelatine.	4 tablespoons cold water.
4 tablespoons boiling water.	1 pint cream.

Wash fruit and add sugar. Soak the gelatine in the cold water and add the hot water. Stir till dissolved. Set it in a pan of ice water. Add the fruit to the gelatine and stir till it begins to thicken. Fold in the beaten cream, put into a mould and pack in ice.

FRUIT GELATINE.

Oranges, bananas, pineapples, berries, peaches, cherries and other fruits may be moulded in lemon or orange jelly.

PERFECTION SALAD.

2 oz. gelatine.	1 cup finely shredded cabbage.
½ cup cold water.	½ cup sugar.
½ cup mild vinegar.	2 cups celery cut in small pieces.
2 cups boiling water.	¼ can sweet red peppers, finely cut.
1 teaspoon salt.	Juice of one lemon.

Soak the gelatine in cold water five minutes; add vinegar, lemon juice, boiling water, sugar and salt. Strain, and when beginning to set, add remaining ingredients. Turn into a mould and chill. Serve on lettuce leaves with mayonnaise dressing.

Lesson No. XVI.

DEEP FAT FRYING.

CHICKEN CROQUETTES.

1 cup cold minced chicken.	1 teaspoon lemon juice.
½ teaspoon salt.	⅛ teaspoon pepper.
¼ teaspoon celery salt.	½ cup white sauce, No. 4.
1 teaspoon parsley.	

Mix the ingredients, adding the white sauce a little at a time until a stiff mixture is obtained. Shape into croquettes, roll in crumbs then in egg and back into crumbs again. Fry in fat. Croquettes may be baked instead of fried. Other meats, such as veal, fish, brains, and sweetbreads may be substituted for the chicken.

FRITTERS.

1 cup flour.	1 tablespoon butter.
¼ teaspoon salt.	1 teaspoon baking powder.
1-3 cup sweet milk.	1 tablespoon sugar.
2 eggs.	

Mix and sift dry ingredients. Beat the yolks and add to them the milk. Stir the liquid into the dry ingredients and drop the melted butter in.

Fold in the beaten whites. Slices of any fruit may be stirred into this batter and fried by spoonfuls immediately in deep fat. Serve with lemon sauce. Oysters may be used if sugar is omitted.

SWEDISH TIMBALES.

1 cup flour.	1 egg.
2-3 cup milk.	1 tablespoon butter.
1 teaspoon sugar.	½ teaspoon salt.

Mix and sift the dry ingredients. Beat the egg slightly and pour it into the milk. Stir the liquid into the dry ingredients and drop in the melted butter. Have the fat hot enough to brown a crumb in sixty seconds, letting the timbale iron heat in the fat. Wipe the iron, dip it half down into the batter, drain, and put quickly into the fat. Cook till brown. Creamed peas, chicken, oysters, salmon, etc., may be placed in them.

For potato chips and cod-fish balls, see Lesson I. Doughnuts, Lesson XI. .

RE-USING.

Fat can be used again, provided it has not been used for frying foods of a pronounced flavor or odor as fish or onions. It should be strained after using.

To clarify fat, put on the stove with pieces of apple or potato in it, heat, then strain.

Lesson No. XVII.

VEGETABLES.

Wash vegetables thoroughly, using brush; pare, peel, or scrape, according to kind. Let stand in cold water until ready to cook to keep crisp, to freshen when wilted, or to prevent them from turning dark.

Cook fresh vegetables in enough freshly boiling salted water to cover and keep water boiling gently (rapid boiling breaks tender vegetables). Allow one-half teaspoon salt to one quart water. In the case of delicate green vegetables, as peas, spinach, etc., salt should not be added until nearly done. Time for cooking vegetables varies with size, age, and freshness.

To Cook Dried Vegetables—Wash in cold water and soak over night. When ready to cook, put vegetables in cold water, bring slowly to simmering, and simmer until done. Add salt during last 15 minutes. If pork is used, less salt may be added.

Canned vegetables should be removed from the can as soon as opened, and if possible have the water drained off and the vegetables washed thoroughly.

Vegetables should be cooked only until tender, drained immediately, and served promptly.

• VEGETABLES IN CREAM SAUCE.

One cup of cream sauce No. II. or III. added to each two cups of

cooked onions, cabbage, potatoes, carrots, peas, cauliflower, or asparagus, makes a palatable dish.

STUFFED TOMATOES.

8 large tomatoes.	1 cup crumbs.
1 cup meat chopped.	2 tablespoons butter.
1 teaspoon salt.	$\frac{1}{4}$ teaspoon pepper.

Cut off tops of tomatoes and cut the pulp. Mix all the other ingredients with the pulp. Fill the shells, set closely together in a baking dish, pouring any juice that may be left around the tomatoes and bake with the cover on for half an hour. Remove the cover and brown.

STUFFED PEPPERS.

Use the green peppers from which the seed have been removed to hold the same mixture as stuffed tomatoes, omitting the pepper in the recipe.

GREEN CORN—CREOLE STYLE.

2 tablespoons butter.	$\frac{1}{2}$ cup tomato juice.
1 slice onion.	$\frac{1}{2}$ teaspoon salt.
1 slice green pepper.	1 cup corn.
2 tablespoons flour.	2 egg yolks, if desired.
1 teaspoon parsley.	

Melt the butter, cook in it the onion and pepper chopped fine until soft and yellow. Add flour and stir till blended. Then add tomato and salt, stir until smooth and boiling, add corn and finely chopped parsley. Stir until boiling throughout and serve at once. (This is for canned corn, fresh corn should be cooked for a longer time.) Add eggs at the last, and do not allow mixture to boil after eggs are added. If more convenient, the flour may be omitted and two tomatoes peeled and cut in small pieces may replace the tomato juice.

Lesson No. XVIII.

CANDY.

FONDANT.

2 cups granulated sugar.	$\frac{1}{8}$ teaspoon cream of tartar.
	$\frac{3}{4}$ cup water.

Stir the sugar, water and cream of tartar together in a granite saucepan till the sugar is dissolved. Wipe all sugar from the sides of the pan with a damp cloth or a pastry brush. Set on the stove and boil without moving till it forms a web between the prongs of a fork. Pour on the dough board or a buttered platter. When a dent can be made on the surface by pressing with the finger, work the candy with a wooden spoon till it becomes creamy enough to knead with the hands. When smooth, put the fondant in a bowl and cover till needed. It is best to let it stand for twenty-four hours before using.

BONBONS.

Shape fondant into small balls, working in the flavoring and coloring.

Press halves of walnuts on opposite sides of the balls, or surround nuts with the fondant. Dates may be stuffed with fondant and rolled in sugar.

PEANUT BRITTLE.

2 cups white sugar. $\frac{1}{2}$ cup shelled peanuts.

Melt the sugar in an iron pan, stirring till all is a light brown. Add peanuts and pour immediately on a buttered slab.

Lesson No. XIX.

FROZEN DISHES.

TO FREEZE ICE CREAM (See Lesson No. VI).

FROZEN CUSTARD (See Lesson No. VI).

PHILADELPHIA ICE CREAM.

1 quart thin cream.	2 teaspoons flavoring.
$\frac{3}{4}$ cup sugar.	Pinch of salt.

1. Mix ingredients and freeze. 2. Scald milk with sugar and salt, cool, flavor, and freeze.

ICE CREAM WITH GELATINE.

1 quart milk.	1 tablespoon gelatine.
1 cup sugar.	2 teaspoons flavoring.
$\frac{1}{8}$ teaspoon salt.	1 pint cream.

Soak the gelatine in one cup of milk. Pour the rest, after scalding it, over the sugar and salt. Put all into a double boiler over hot water and stir till gelatine is dissolved. Strain, cool, flavor, add cream, and freeze.

CHOCOLATE ICE CREAM.

Two ounces of chocolate may be added to the milk while it is being scalded in any of the above recipes, or a little milk may be stirred into the melted chocolate and then mixed with the whole amount.

LEMON SHERBERT.

4 lemons.	$\frac{3}{4}$ pound sugar.
1 quart water.	White 1 egg.

Boil sugar and water together, cool, add lemon juice and freeze. Add the beaten white just as the sherbet begins to freeze.

MINT SHERBET.

To the sugar in the above recipe add six long stalks of mint and crush with a wooden pestle. Pour on cold water and lemon juice, and, after an hour, strain and freeze, adding a little green color paste as the mixture is put into the freezer.

MILK SHERBET.

4 cups milk. $1\frac{1}{2}$ cups sugar.

Juice 3 lemons.

Mix juice and sugar, and stir while milk is added slowly.

PINEAPPLE ICE.

1 pint water.

1 pint pineapple.

Mix and freeze.

1 lemon.

1 cup sugar.

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